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L2: Entry 1 of 2

File: USPT

Jul 16, 2002

DOCUMENT-IDENTIFIER: US 6421470 B1
TITLE: Image processing apparatus and audio-coded recording media

US PATENT NO. (1):
6421470

Detailed Description Text (48):

In one method of hearing the sound, a storage position of the audio data corresponding to the clicked or selected audio code is located by using object makeup information. This audio data is put to an appropriate decoding process, and transmitted to the speaker to produce the sound. This method is based on the precondition that the audio data corresponding to the audio code is stored in an accessible form. In the other method used where the above precondition is not satisfied, the two-dimensional code corresponding to the selected audio code is taken out of the frame memory as separated from the still image data. The two-dimensional audio code is put to a reverse conversion to restore the original audio data. The audio data restored is put to an appropriate decoding process, and transmitted to the speaker to produce the sound.

Detailed Description Text (55):

A pointing device 381 such as a mouse is used to select the frame of an audio code to be checked. The controller 390 identifies a corresponding audio data from the object makeup information, and reads the corresponding audio data from the storage 320 by means of an audio data retriever 382. The audio data read is put to a necessary decoding process at an audio reproducer 383 and transmitted to a speaker 384 as an amplified analog audio signal. As a result, an original sound is released from the speaker 384. By listening to the sound, the operator is able to check whether the audio code image displayed on the monitor 360 is correctly combined with a still image displayed simultaneously.

Detailed Description Text (56):

In the absence of the selected audio code image from the storage 320, the controller 390 reads only the audio code image corresponding to the selected audio code frame from the frame memory 350 and transmits the code to a reverse converter 385. The reverse converter 385 carries out a process reverse to what is done at the audio data two-dimensional encoder 342, to convert the audio code into audio data. The audio data obtained from the reverse converter 385 is put to a necessary decoding process at the audio reproducer 383 and transmitted to the speaker 384 as an amplified analog audio signal. As a result, an original sound is released from the speaker 384.

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US-PAT-NO: 6421470
DOCUMENT-IDENTIFIER: US 6421470 B1

TITLE: Image processing apparatus and audio-coded recording media

DATE-ISSUED: July 16, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|-----------------|----------|-------|----------|---------|
| Nozaki; Iwao | Wakayama | | | JP |
| Imade; Shinichi | Iruma | | | JP |
| Yoshioka; Kenji | Hachioji | | | JP |

ASSIGNEE-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|---------------------------|--------------|-------|----------|---------|-----------|
| Noritsu Koki Co., Ltd. | Wakayama-Ken | | | JP | 03 |
| Olympus Optical Co., Ltd. | Tokyo | | | JP | 03 |

APPL-NO: 09/ 194811 [PALM]
DATE FILED: December 2, 1998

FOREIGN-APPL-PRIORITY-DATA:

| COUNTRY | APPL-NO | APPL-DATE |
|---------|----------|------------------|
| JP | 9-174416 | June 30, 1997 |
| JP | 9-284828 | October 17, 1997 |

PCT-DATA:

| APPL-NO | DATE-FILED | PUB-NO | PUB-DATE | 371-DATE | 102(E)-DATE |
|----------------|--------------|--------|----------|-------------|-------------|
| PCT/JP98/02494 | June 5, 1998 | | | Dec 2, 1999 | Dec 2, 1999 |

INT-CL: [07] G06 K 7/10, G06 K 9/20

US-CL-ISSUED: 382/321; 707/500.1
US-CL-CURRENT: 382/321; 715/500.1

FIELD-OF-SEARCH: 382/183, 382/317, 382/321, 382/232, 235/454, 235/462.13, 235/470,
388/474, 345/302, 355/40, 707/500.1

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

| | PAT-NO | ISSUE-DATE | PATENTEE-NAME | US-CL |
|--------------------------|---------|---------------|---------------|---------|
| <input type="checkbox"/> | 5276472 | January 1994 | Bell et al. | 396/312 |
| <input type="checkbox"/> | 5614946 | March 1997 | Fukuoka | 382/232 |
| <input type="checkbox"/> | 5650826 | July 1997 | Eitz | 348/468 |
| <input type="checkbox"/> | 5757468 | May 1998 | Patton et al. | 355/40 |
| <input type="checkbox"/> | 5873735 | February 1999 | Yamada et al. | 382/183 |

FOREIGN PATENT DOCUMENTS

| FOREIGN-PAT-NO | PUBN-DATE | COUNTRY | US-CL |
|----------------|-------------|---------|-------|
| 7181606 | July 1995 | JP | |
| 7214939 | August 1995 | JP | |
| 9149365 | June 1997 | JP | |

ART-UNIT: 2623

PRIMARY-EXAMINER: Johnson; Timothy M.

ABSTRACT:

An image processing apparatus capable of simply and reliably handling two different forms of information, audio and image, as linked together in order to record the information on the same recording medium. This image processing apparatus has an image input unit (10) for inputting image information, an audio input unit (60) for inputting audio information, a link processing unit (130a) for setting link information to link the image information and audio information, a code converter (242) for converting the audio information into an optically readable audio code image, and a printing device (30) operable based on the link information for recording a visual image corresponding to the image information and the audio code image on a predetermined recording medium. One can not only visually enjoy the image recorded on the recording medium, but hear a sound from the audio code image recorded on the recording medium with an appropriate reproduction device.

3 Claims, 20 Drawing figures

End of Result Set



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L3: Entry 1 of 1

File: USPT

Feb 9, 1999

US-PAT-NO: 5870771
DOCUMENT-IDENTIFIER: US 5870771 A

TITLE: Computerized system for selecting, adjusting, and previewing framing product combinations for artwork and other items to be framed

DATE-ISSUED: February 9, 1999

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|-----------------|------------|-------|----------|---------|
| Oberg; Larry B. | Washington | MO | 63090 | |

APPL-NO: 08/ 749418 [PALM]
DATE FILED: November 15, 1996

INT-CL: [06] G06 F 17/60

US-CL-ISSUED: 707/502; 345/962, 345/964
US-CL-CURRENT: 715/502; 345/962, 345/964

FIELD-OF-SEARCH: 707/517, 707/502, 707/527, 345/962, 345/964, 345/968

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

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| | PAT-NO | ISSUE-DATE | PATENTEE-NAME | US-CL |
|--------------------------|---------|----------------|---------------|------------|
| <input type="checkbox"/> | 4149246 | April 1979 | Goldman | 364/200 |
| <input type="checkbox"/> | 4434467 | February 1984 | Scott | 364/400 |
| <input type="checkbox"/> | 4546434 | October 1985 | Gioello | 364/300 |
| <input type="checkbox"/> | 5053956 | October 1991 | Donald et al. | 364/401 |
| <input type="checkbox"/> | 5111392 | May 1992 | Malin | 364/401 |
| <input type="checkbox"/> | 5195030 | March 1993 | White | 364/401 |
| <input type="checkbox"/> | 5291395 | March 1994 | Abecassis | 364/401 |
| <input type="checkbox"/> | 5343386 | August 1994 | Barber | 364/400 |
| <input type="checkbox"/> | 5432904 | July 1995 | Wong | 395/161 |
| <input type="checkbox"/> | 5493679 | February 1996 | Virgil et al. | 395/600 |
| <input type="checkbox"/> | 5535320 | July 1996 | Gay et al. | 707/515 |
| <input type="checkbox"/> | 5550746 | August 1996 | Jacobs | 364/479.01 |
| <input type="checkbox"/> | 5570292 | October 1996 | Abrahm et al. | 364/473.01 |
| <input type="checkbox"/> | 5649220 | July 1997 | Yosefi | 395/788 |
| <input type="checkbox"/> | 5664352 | September 1997 | Beckman | 40/545 |

OTHER PUBLICATIONS

FrameShop found on the Internet at:
<http://www.visionworksinc.com/visionworksinc/FrameShop.html>. Jan. 20, 1997.

ART-UNIT: 271

PRIMARY-EXAMINER: Black; Thomas G.

ASSISTANT-EXAMINER: Loomis; John C.

ABSTRACT:

A computerized system having means for displaying a digital image of an object such as an object of artwork supplied by the user, analyzing the color composition of the image, searching a database for coordinating frame and matting material products, developing composite images of the user's input with the matching selections, and presenting the digital images to the user so the items may be previewed before placing an order. The system interfaces with a mobile digital camera system for taking digital pictures of input supplied by the customer. The image may be cropped or otherwise altered and combined with the selected frame moulding and matting material combinations. The user may experiment with various features such as color, shape, size, width, number of openings, and other characteristics of frames and matting material until the desired combination is achieved. The system also includes a database of merchandising information such as products and materials, colors and designs available, model numbers, size, material type, cost, and supplier source. The system is capable of generating a printout of the composite image and associated data, and of storing the data for later use.

33 Claims, 6 Drawing figures